



Atty Dkt 2225-0001  
94004.003  
PATENT

16-  
RECEIVED  
APR 06 2001  
TECH CENTER 1600/2900

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington D.C. 20231 on March 27, 2001

3/27/01  
Date

Patricia K. Nemere  
Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

AZPIROZ et al.

Serial No.: 09/502,426

Group Art Unit: Unassigned

Filing Date: February 11, 2000

Examiner: Unassigned

Title: *dwf4* POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF

TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is an Information Disclosure Statement, including a Form PTO-1449 and copies of the cited references. It is believed that no fee is due.

The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 which may be required by this paper, or to credit any overpayment, to Deposit Account No. 18-1648.

Respectfully submitted,

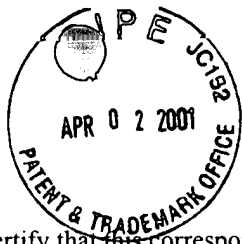
Date: March 26, 2001

By:

Dahna S. Pasternak

Dahna S. Pasternak  
Registration No. 41,411

ROBINS & ASSOCIATES  
90 Middlefield Road, Suite 200  
Menlo Park, CA 94025  
Telephone: (650) 325-7812  
Facsimile: (650) 325-7823



Atty Dkt 2225-0001  
94004.003  
PATENT

#6

RECEIVED  
APR 06 2001  
TECH CENTER 1600/2900

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on March 27, 2001.

3/27/01  
Date

Patricia K. Hines  
Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

AZPIROZ et al.

Serial No.: 09/502,426

Group Art Unit: Unassigned

Filing Date: February 11, 2000

Examiner: Unassigned

Title: *dwf4* POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

The information listed below may be material to the examination of the above-identified application. Copies of the information and completed PTO-1449 forms are submitted herewith. The Examiner is respectfully requested to make this information of official record in the application. The information includes:

Azpiroz et al., "An Arabidopsis Brassinosteroid-Dependent Mutant is Blocked in Cell Elongation," *Plant Cell* 10:219-230 ((1998);

Barendse et al., "The role of Endogenous Gibberellins During Fruit and Seed Development: Studies on Gibberellin-Deficient Genotypes of *Arabidopsis thaliana*," *Physiol. Plant.* 67:315-319 (1986);

Bishop et al., "The Tomato *Dwarf* Gene Isolated by Heterologous Transposon Tagging Encodes the First Member of a New Cytochrome P450 Family," *Plant Cell* 8:959-969 (1996);

Choe et al., "The *DWF4* Gene of *Arabidopsis* Encodes a Cytochrome Pr450 That Mediates Multiple 22<sub>α</sub>-Hydroxylation Steps in Brassinosteroid Biosynthesis," *The Plant Cell* 10(2):231-244 (1998);

Choi et al., "An Alternative Brassinolide Biosynthetic Pathway Via Late C-6 Oxidation," *Phytochemistry* 44(4):609-613 (1997);

Chory et al., "A Role for Cytokinins in De-Etiolation in *Arabidopsis*," *Plant Physiol.* 104:339-347 (1994);

Chory et al., "*Arabidopsis thaliana* Mutant That Develops as a Light-Grown Plant in the Absence of Light," *Cell* 58:991-999 (1989);

Clouse et al., "A Brassinosteroid-Insensitive Mutant in *Arabidopsis thaliana* Exhibits Multiple Defects in Growth and Development," *Plant Physiol.* 111:671-678 (1996);

Deng, X.W., "Fresh View of Light Signal Transduction in Plants," *Cell* 76:423-426 (1994);

Deng and Quail, "Genetic and Phenotype Characterization of *cop 1* Mutants of *Arabidopsis thaliana*," *The Plant Journal* 2(1):83-95 (1992);

Feldmann et al., "A Dwarf Mutant of *Arabidopsis* Generated by T-DNA Insertion Mutagenesis," *Science* 243:1351-1354 (1989);

Fujioka et al., "The *Arabidopsis deetiolated2* Mutant is Blocked Early in Brassinosteroid Biosynthesis," *Plant Cell* 9:1951-1962 (1997);

Fujioka et al., "Identification of Castasterone, 6-Deoxocastasterone, Typhasterol and 6-Deoxytyphasterol from the Shoots of *Arabidopsis thaliana*," *Plant Cell Physiol.* 37(8):1201-1203 (1996);

Fujioka and Sakurai, "Brassinosteroids," *Nat. Prod. Rep.* 14:1-10 (1997a);

Fujioka and Sakurai, "Biosynthesis and Metabolism of Brassinosteroids," *Physiologia Plantarum* 100:710-715 (1997b);

Grove et al., "Brassinolide, a Plant Growth-Promoting Steroid Isolated From *Brassica napus* Pollen," *Nature* 281:216-217 (1979);

Hou et al., "A New Class of *Arabidopsis* Constitutive Photomorphogenic Genes Involved in Regulating Cotyledon Development," *Plant Cell* 5:329-339 (1993);

Kauschmann et al., "Genetic Evidence for an Essential Role of Brassinosteroids in Plant Development," *Plant Journal* 9:701-713 (1996);

Koornneef et al. "A Gibberellin Insensitive Mutant of *Arabidopsis thaliana*," *Physiol Plant.* 65:33-39 (1985);

Koornneef and Van der Veen, "Induction and Analysis of Gibberellin Sensitive Mutants in *Arabidopsis thaliana* (L.) Heynh," *Theor. Appl. Genet.* 58:257-263 (1980);

Li et al., "A Role for Brassinosteroids in Light-Dependent Development of *Arabidopsis*," *Science* 272:398-401 (1996);

Li et al., "Conservation Function Between Mammalian and Plant Steroid 5 $\alpha$ -Reductases," *Proc. Natl. Acad. Sci. USA* 94:3554-3559 (1997);

Li and Chory, "A Putative Leucine-Rich Repeat Receptor Kinase Involved in Brassinosteroid Signal Transduction," *Cell* 90:929-938 (1997);

Mandava, "Plant Growth-Promoting Brassinosteroids," *Annu. Rev. Plant Physiol. Plant Mol. Biol.* 39:23-52 (1988);

Mitchell et al., "Brassins-a New Family of Plant Hormones from Rape Pollen," *Nature* 225:1065-1066 (1970);

Mushegian and Koonin, "A Putative FAD-Binding Domain in a Distinct Group of Oxidases Including a Protein Involved in Plant Development," *Protein Science* 4:1243-1244 (1995);

Nomura et al., "Blockage of Brassinosteroid Biosynthesis and Sensitivity Causes Dwarfism in Garden Pea," *Plant Physiol.* 113:31-37 (1997);

Rees, "Biosynthesis of Ecdysone," In *Comprehensive Insect Physiology, Biochemistry and Pharmacology*, G. A Kerkut and L.I. Gilbert, eds (Oxford, U.K: Pergamon Press, pp. 249-293 (1985);

Sakurai and Fujioka, "Studies on Biosynthesis of Brassinosteroids," *Biosci. Biotechnol. Biochem.* 61:757-762 (1997);

Szekeres et al., "Brassinosteroids Rescue the Deficiency of CYP90, a Cytochrome P450, Controlling Cell Elongation and De-etiolation in *Arabidopsis*," *Cell* 85:171-182 (1996);

Takahashi et al., "The DIMINUTO Gene of *Arabidopsis* is Involved in Regulating Cell Elongation," *Genes & Development* 9:97-107 (1995);

Talon et al., "Endogenous Gibberellins in *Arabidopsis thaliana* and Possible Steps Blocked in the Biosynthetic Pathways of the Semidwarf *ga4* and *ga5* Mutants," *Proc. Natl. Acad. Sci USA* 87:7983-7987 (1990);

Timpte et al., "Effects of the *axr2* Mutation of *Arabidopsis* on Cell Shape in Hypocotyl and Inflorescence," *Planta* 188:271-278 (1992);

Timpte et al., "The *axr2-1* Mutation of *Arabidopsis thaliana* is a Gain-of-Function Mutation that Disrupts an Early Step in Auxin Response," *Genetics* 138:1239-1249 (1994);

Wei et al., "*Arabidopsis COP8, COP10, and COP11* Genes are Involved in Repression of Photomorphogenic Development in Darkness," *Plant Cell* 6:629-643 (1994);

Wei and Deng, "*COP9*: A New Genetic Locus Involved in Light-Regulated Development and Gene Expression in *Arabidopsis*," *Plant Cell* 4:1507-1518 (1992);

Yokata, T., "The Structure, Biosynthesis and Function of Brassinosteroids," *Trends Plant Sci.* 2(4):137-143 (1997);

GenBank Accession number: AF044216;

GenBank Accession number: X87368;

GenBank Accession number: U54770;

GenBank Accession number: M13785;

GenBank Accession number: D64003;

GenBank Accession number: U32579;

GenBank Accession number: U68234;

GenBank Accession number: X70981;

GenBank Accession number: P48421;

GenBank Accession number: AL049659;

GenBank Accession number: P48418; and

GenBank Accession number: X71658.

This Information Disclosure Statement under 37 CFR § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

Respectfully submitted,

Date: March 26, 2001

By: D. Pasternak  
Dahna S. Pasternak  
Registration No. 41,411

ROBINS & ASSOCIATION  
90 Middlefield Road, Suite 200  
Menlo Park, CA 94025  
Telephone: 650-325-7812  
Facsimile: 650-325-7823